

Work Order ID 146558

May 19, 2016 11:54:18 AM

146558

Page 1

Item ID: D3564-11 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Wearplate Aft
 Start Date: 5/24/2016 Start Qty: 10.00 ***10*** Cust Item ID:
 Required Date: 5/27/2016 Req'd Qty: 10.00 ***10*** Customer:
 Reference:

Approvals: Process Plan: SU Date: 16/5/19 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3564	D								
100	FLOW WATER JET	0.00							
100									
Waterjet	Memo	1.40							
FLOW CNC Waterjet	1-Cut as per Dwg D3564 ***** (D3564-1F) ***** Dwg Rev: <u>D</u> Prog								
	Rev: <u>D</u> 2-Deburr if necessary								
110	QC2- Inspect parts off machine FAI/FAIB	0.00							
110									
QC	Memo	0.10							
Quality Control									
120	QC8- Inspect parts - second check	0.00							
120									
QC	Memo	0.20							
Quality Control									

(14) _____ DE 16/05/19

(14) _____ DE 16/05/19

(13) _____ DAS 36 9-88

MAY 20 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER : _____							

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Page 2

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 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	NC BRAKE	0.03							
130									
Brake NC	Memo	0.30			DAS	13			JUN 02 2016
Brake NC	Deburr if necessary Form on Brake as per Dwg D3564 using Jigs DT8179				30				
					9-89				
140	QC5- Inspect part completeness to step on W/O	0.00							
140									
QC	Memo	0.20				(13)	1606-02		DAS
Quality Control									9
									9-89
150	Large Fab	0.00							
150									
Large Fab	Memo	8.00				13			12/16/06/03
Large Fab	1- WELD AS PER DWG AND QSI004								PT
	2059B HARDCOAT BATCH: <u>M130145</u>								

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QS1042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

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Page 3

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 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	QC10- Inspect visual per QSI004- ground welds	0.00							DAS
160						(13)	16-06-07		9
QC	Memo	0.20							9-89
Quality Control									
170	QC5- Inspect part completeness to step on W/O	0.00							DAS
170						(13)	16-06-07		9
QC	Memo	0.20							9-89
Quality Control									
180	Grey Sandtex(Ref:4.3.5.6) per QSI005 4.3	0.00							
180	M1136746.					13	16-06-10.		DAS 34
Powdercoat	Memo	0.10							9-89
Powder Coating	START TIME: 8:55. OVEN TEMPERATURE: 320° FINISH TIME: 9:25.								

DQA: _____ Date: _____



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Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER : _____							

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Page 4

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 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190	QC3- Inspect Part Finish	0.00				(13)			DAS 38 3-89
190									
QC	Memo	0.10							
Quality Control									JUN 10 2016
200	Identify as per dwg & Stock Location <u>FP-002</u>	0.00							
200									
Packaging	Memo	0.10							
Packaging	LOCATION : FP002								x13 of 21 14/06/13
210	QC21- Final Inspection - Work Order Release	0.00							
210									
QC	Memo	1.00							MW JUN 14 2016
Quality Control									

MW JUN 13 2016

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐		Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐		Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	
		OTHER : ☐							

Picklist Print

May 19, 2016 11:54:28 AM

Page 1

Work Order ID: 146558

146558

Parent Item: D3564-11

D3564-11

Parent Item Name: Wearplate Aft

Start Date: 5/24/2016

Required Date: 5/27/2016

Start Qty: 10.00

Required Qty: 10.00

Comments: IPP Rev:A New Issue 07-03-08 ec
IPP Rev:B As per Rev C 07-07-09 JLM
IPP Rev:C As per Rev D 07-09-09 JLM Verified By:EC
IPP Rev:D Comments revised on Step 5, 6 per B44656 09-02-06 KJ
Verified By:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit *	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	------------------	--------------	---------------	----------------	--------

M304S16GA		Purchased		No		100	sf	184.8468	1.41	14.84211			
-----------	--	-----------	--	----	--	-----	----	----------	------	----------	--	--	--

M304S16GA

304/316 Sheet .063

02/16/05/19

Location

Loc Qty

Loc Code

MAT010

65.05

m134677

65.05

MAT019

32.176

m134067

0.706

m134158

1.603

m134399

1.067

m134551

28.8

TPI

87.620844

m134604

87.620844

14



10) PARTS ARE SYMMETRIC ABOUT ψ

D3564-1	1.85 lbs
D3564-3	1.85 lbs
D3564-5	1.93 lbs
D3564-7	1.26 lbs
D3564-9	1.85 lbs
D3564-11	1.85 lbs
D3564-13	0.38 lbs
D3564-15	0.80 lbs

D	UPDATE DRAWING TEMPLATE; CHANGE ALL (TYP X PLS) TO (X PLACES); PG1 A8: UPDATE NOTES; PG1 A8, PG3 B5,C5: ADD D3564-15; PG1 B6,B3: D3564-1/3 WAS ONE FIGURE; PG2 A7,A3: D3564-9/-11 WAS ONE FIGURE; PG2 A7, A3: D3564-9/-11 WAS ON PG1; PG3 B8,C8: D3564-13 WAS ON PG2; PG3 D2: WELDING DETAIL WAS ON PG1 PG3 A5,7,B2: RELOCATE DETAILS AND SECTION; PG3 A5,7,B2: INCREASE DETAIL AND SECTION SIZE		CB	07.08.21
C	MOVE TAB OUTBOARD, DETAIL A		PH	07.04.17
B	ADD AMS 5513 AND AMS 5524		PH	07.03.20
A	NEW ISSUE		PH	06.12.18
REV.	DESCRIPTION		BY	DATE
DESIGN	PH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. D3564 TITLE WEARSHOE REV. D SHEET 1 OF 3 SCALE 1:8		
DRAWN	CB			
CHECKED	PH			
MFG. APPR.	PH			
APPROVED	PH			
DE APPR.	PH	COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT THE WRITTEN PERMISSION FROM DART AEROSPACE LTD.		
DATE	07.08.21			

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO.

D3564

	TITLE
--	-------

WEARSHOE

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SHEET 1 OF 3

SCALE

1-8

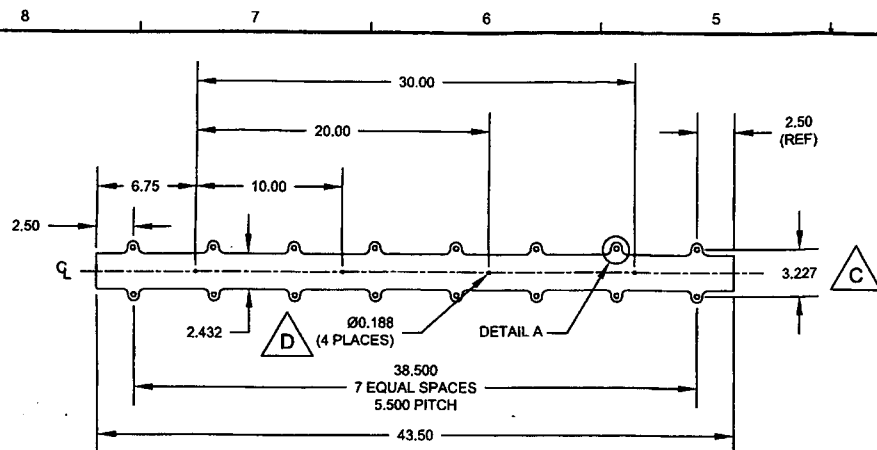
SPACE LTD

EXPRESS CONDITION THAT IT IS
ANY OTHER PERSON WITHOUT

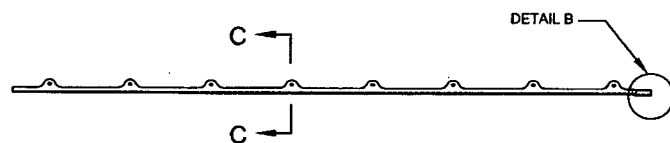
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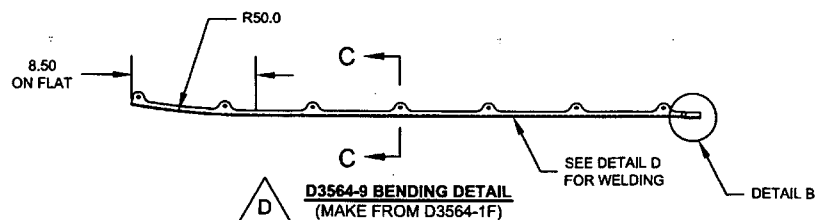
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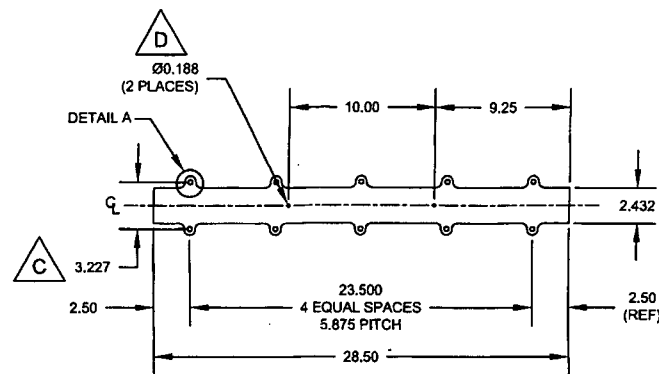
D3564-5F FLAT PATTERN



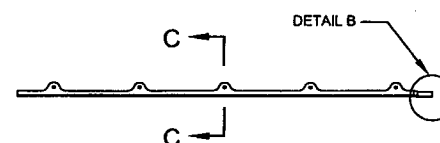
D3564-5 BENDING DETAIL
(MAKE D3564-5 FROM D3564-5F)



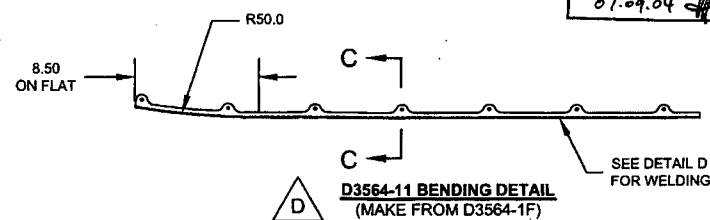
D3564-9 BENDING DETAIL
(MAKE FROM D3564-1F)



D3564-7F FLAT PATTERN



D3564-7 BENDING DETAIL
(MAKE D3564-7 FROM D3564-7F)



D3564-11 BENDING DETAIL
(MAKE FROM D3564-1F)

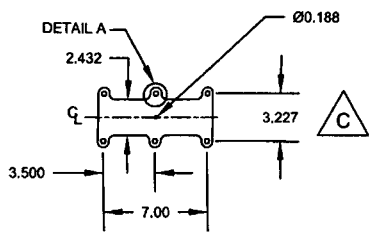
UNDER REVIEW
OK 07.11.28

RELEASED

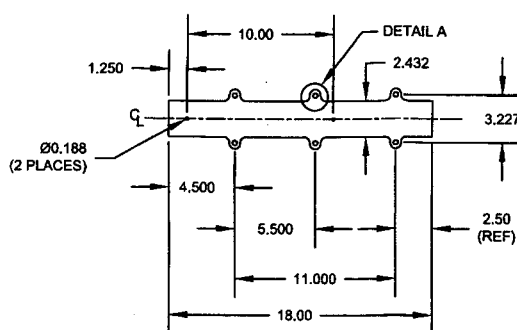
07.09.04

DESIGN	PH	DART AEROSPACE LTD	
DRAWN	CB	HAWKESBURY, ONTARIO, CANADA	
CHECKED	PH	DRAWING NO.	REV. D
MFG. APPR.	PH	D3564	SHEET 2 OF 3
APPROVED	AD	TITLE	SCALE
DE APPR.	AD	WEARSHOE	1:8
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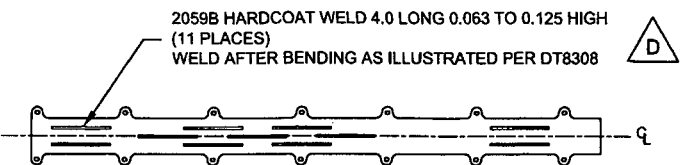
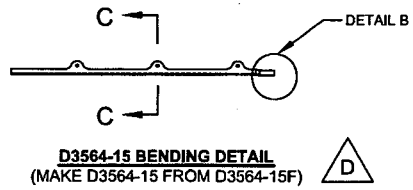
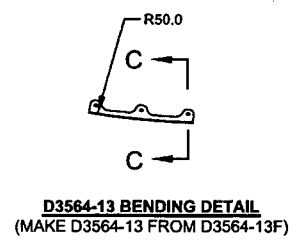
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D3564-13F FLAT PATTERN

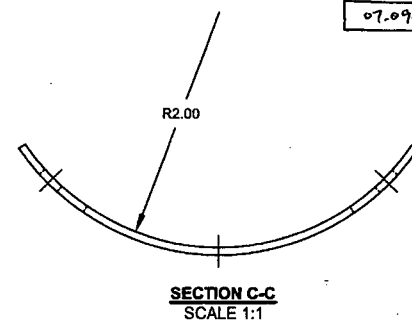


D3564-15F FLAT PATTERN

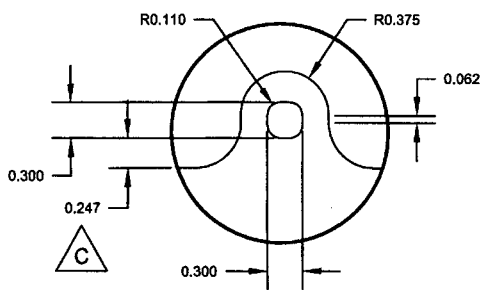


DETAIL D
(D3564-1/-3/-9/-11 WELDING DETAIL)

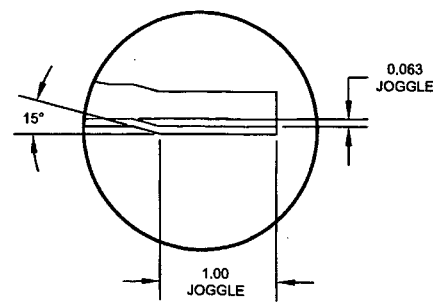
RELEASED
07.09.04



SECTION C-C
SCALE 1:1



DETAIL A
SCALE 1:1



DETAIL B
SCALE 1:1

UNDER REVIEW
OK 07.11.28

DESIGN	PH	DART AEROSPACE LTD	
DRAWN	CB	HAWKESBURY, ONTARIO, CANADA	
CHECKED	PH	DRAWING NO. D3564	REV. D
MFG. APPR.	PH	SHEET 3 OF 3	
APPROVED	PH	TITLE WEARSHOE	
DE APPR.	PH	SCALE 1:8	
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8 7 6 5 4 3 2 1

